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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,964	06/15/2001	Kenji Masaki	018775-832	5968

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EXAMINER	
DIVINE, LUCAS	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/880,964	MASAKI ET AL.	
	Examiner	Art Unit	
	Lucas Divine	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *15 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☒ Claim(s) *2,6,8,10,11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/18/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the oath or declaration is unsigned. On 8/9/2001, the applicant received a NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION including notice that *The oath or declaration is unsigned.* Further, applicant's reply dated 8/30/01 states that *a Combined Declaration and Power of Attorney signed by the inventor[s]* was enclosed with that correspondence. Examiner finds no record of a signed oath or declaration in said correspondence. Applicant is therefore required to provide a signed oath or declaration to avoid abandonment.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the '**clear device**' apparatus functional unit claimed in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the '**data deleter**' apparatus functional unit claimed in claim 3 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**S306**" in Fig. 6 has been used to designate both the 'continue to transmit image data to the printer' step and the 'generate a random timing' step.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**5b**" in Fig. 1 has been used to designate both floppy drive in computer 1 and a device that looks exactly like CD-ROM drive 9b.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **6, 2, 3, and S456**.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **6b and S546**.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1 – 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, applicant claims '**a detector which detects whether data of a specified pattern is included in the input data or the processed data, in parallel to the data processing done by said output device**'. Examiner does not understand how the detector detects pattern information on processed data in parallel with the processing done by said output device because the detector would have to wait until the output device outputs the processed data before any detection could be completed on it. According to the claim 1, the data is not processed data until it has been processed by the output device claimed. Therefore the detector could not perform the detection in parallel, at the same time, because it would have to wait until the output device was done processing the data before it could perform detection on 'processed

data'. Therefore it is unclear and indefinite how the detector and output device work in parallel and claim 1 is rejected for not particularly pointing or distinctly claiming the subject matter which applicant regards as the invention.

Regarding claims 7, 12, 15, these claims are all independent claims which include the language rejected above and are rejected for the same reasons.

Regarding claims 2 – 6, 8 – 11, and 13 – 14, these claims are rejected based on their dependence from rejected independent claims, thus including the rejected limitations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 4, 7, 12, 14, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Owada et al. (US 6108098) hereafter referred to as Owada.

Regarding claim 7, Owada teaches **a print system including an image processor** (functional units of the printer processor shown in Fig. 2) **and a printer which prints data received from said image processor** (printer engine 5 which outputs a printout 5; col. 5 lines 42-44); **wherein said image processor comprises:**

an output device which processes input data and outputs the processed data (RF converter takes in unprocessed RGB data and outputs processed YMCK data; col. 5 lines 25-27);

a detector which detects whether data of a specified pattern is included in the input data or in the processed data (image recognition circuit 7 which performs pattern detection on data being printed; col. 5 lines 50-53)**, in parallel to the data processing by said output device** (a reading suggests that in parallel refers to the ability to perform functions at the same time – image recognition circuit is shown as able to process data at the same time as RF converter: the RF converter continues to convert data and send it to printer engine while image recognition circuit is performing pattern detection functions)**; and**

a stop controller which makes said output device stop to output the processed data (control unit 21 which stops printer engine if an illegal pattern is detected; col. 5 lines 54-62) **at an irregular timing after said detector detects the specified pattern** (as shown in Fig. 2, the Det signal is sent to the control unit and then the control unit processes the signal and issues a suspend or other process control signal to the printer engine based on the result; during this process the signals and processing all vary based on: clock speeds, bus speeds, clock and bus cycle lengths, other internal component delays, if any other processes are being run by the control unit, and if any data is coming in from the operation panel that needs to be handled; thus the exact timing of the signal being delivered to the control unit is irregular along the bus line holding the Det signal, as well as the timing until the command is processed in the control unit is irregular [depending on other things going on in the control unit, there is not a standard time to handle the Det signal] and then the transmission of the stop or suspend signal to the printer

engine is irregular and can vary, thus the whole stop operation occurs at an irregular time after the detection of an illegal pattern);

wherein said printer prints an image on a sheet of paper, based on the data outputted by said output device (col. 5 lines 42-45).

Regarding claim 1, Owada teaches **an image processor comprising:**

an output device which processes input data and outputs the processed data (RF converter takes in unprocessed RGB data and outputs processed YMCK data; col. 5 lines 25-27);

a detector which detects whether data of a specified pattern is included in the input data or in the processed data (image recognition circuit 7 which performs pattern detection on data being printed; col. 5 lines 50-53), **in parallel to the data processing by said output device** (a reading suggests that in parallel refers to the ability to perform functions at the same time – image recognition circuit is shown as able to process data at the same time as RF converter: the RF converter continues to convert data and send it to printer engine while image recognition circuit is performing pattern detection functions); **and**

a stop controller which makes said output device stop to output the processed data (control unit 21 which stops printer engine if an illegal pattern is detected; col. 5 lines 54-62) **at an irregular timing after said detector detects the specified pattern** (as shown in Fig. 2, the Det signal is sent to the control unit and then the control unit processes the signal and issues a suspend or other process control signal to the printer engine based on the result; during this process the signals and processing all vary based on: clock speeds, bus speeds, clock and bus cycle lengths, other internal component delays, if any other processes are being run by the

control unit, and if any data is coming in from the operation panel that needs to be handled; thus the exact timing of the signal being delivered to the control unit is irregular along the bus line holding the Det signal, as well as the timing until the command is processed in the control unit is irregular [depending on other things going on in the control unit, there is not a standard time to handle the Det signal] and then the transmission of the stop or suspend signal to the printer engine is irregular and can vary, thus the whole stop operation occurs at an irregular time after the detection of an illegal pattern).

Regarding claim 4, which depends from claim 1, Owada further teaches that **said output device outputs the processed data to a printer which prints an image on a sheet of paper** col. 5 lines 42-45).

Regarding claim 15, the functional components of apparatus claim 1 perform all of the method steps of method claim 15. Therefore, claim 15 is rejected for the same reasons as stated above in the rejection of apparatus claim 1.

Regarding claim 12, the program steps of storage medium claim 12 are the same steps as in the rejected method claim 15. Therefore, the steps of the storage medium storing a computer-executable program are rejected for the same reasons above in method claim 15. Further, Owada specifically teaches that the functional units of they're invention can be implemented within a storage medium storing program codes (col. 13 lines 22-45).

Regarding claim 14, which depends from claim 12, Owada further teaches that the **processing step the processed data is outputted to a printer** (col. 5 lines 42-45).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Owada as applied to claim 1 above, and further in view of Inui et al. (US 6249658) hereafter referred to as Inui.

Regarding claim 3, Owada teaches controlling the output of print jobs based on image recognition. If image data includes illegal items, the print job is suspended. Thus, the print job data in local memory is no longer necessary.

So, while Owada teaches the cancellation/suspension of print jobs, Owada does not specifically teach **a memory device which stores the input data or the processed data; and a data deleter which deletes data stored in said memory device when the specified pattern is detected.**

Inui teaches:

a memory device which stores the input data or the processed data (Fig. 4, memory 230 which holds image data between reading, processing, and outputting); **and**

a data deleter which deletes data stored in said memory device when the specified pattern is detected (when a print job is cancelled, the image data for that job is deleted from memory 230, col. 12 lines 8-10).

It would have been obvious to one of ordinary skill in the art to delete image data from the memory for cancelled/suspended [therefore unnecessary] print jobs in the system of Owada. The motivation for doing so would have been to efficiently manage the memory and prevent memory full errors by removing data that is no longer needed by the system.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owada as applied to claims 1 and 4 above, and further in view of Alyfaka et al. (US 5410471) hereafter referred to as Alyfaka.

Regarding claim 5, which depends from claim 4, Owada teaches controlling the output of print jobs based on image recognition. If image data includes illegal items, the print job is suspended. Thus, the print job data in the print engine buffer is no longer necessary (it is implied that the print engine includes a print buffer in order to correctly and smoothly receive print data from RF converter).

So, while Owada teaches the cancellation/suspension of print jobs and a transmitter which transmits control signals to the printer engine (control unit 21), Owada does not specifically teach **clearing the buffer in the printer** when the print data is no longer necessary.

Alyfaka teaches the clearing of memory of transmission buffers when the data within the buffer is no longer necessary (Fig. 6 ref. no. S112, col. 13 lines 46-47).

It would have therefore been obvious to one of ordinary skill in the art that the control unit of Owada would clear the print engine buffer memory when the data in the buffer was no longer necessary, e.g. when the print job is suspended due to pattern detection. The motivation for doing so would have been to allow other print job data access to the printer buffer and to prevent buffer overrun errors by efficiently managing the buffer.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owada as applied to claims 7 above, and further in view of Alyfaka.

Regarding claim 9, which depends from claim 7, Owada teaches controlling the output of print jobs based on image recognition. If image data includes illegal items, the print job is suspended. Thus, the print job data in the print engine buffer is no longer necessary (it is implied that the print engine includes a print buffer in order to correctly and smoothly receive print data from RF converter).

So, while Owada teaches the cancellation/suspension of print jobs and a transmitter which transmits control signals to the printer engine (control unit 21), Owada does not specifically teach **clearing the buffer in the printer** when the print data is no longer necessary.

Alyfaka teaches the clearing of memory of transmission buffers when the data within the buffer is no longer necessary (Fig. 6 ref. no. S112, col. 13 lines 46-47, wherein it is implied that in the physical print engine there are clearing structural elements forming a device in order to perform the clearing function).

It would have therefore been obvious to one of ordinary skill in the art that the control unit of Owada would clear the print engine buffer memory when the data in the buffer was no

longer necessary, e.g. when the print job is suspended due to pattern detection. The motivation for doing so would have been to allow other print job data access to the printer buffer and to prevent buffer overrun errors by efficiently managing the buffer.

Allowable Subject Matter

14. Claims 2, 6, 8, 10, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action AND rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-6687017, Kakiuchi et al., 2-3-2004: teach a printer equipped with image recognition unit for counterfeiting prevention, computer providing printer with print source, and print system including printer and computer.

US-6272248, Saitoh et al, 8-7-2001: teach an original-discrimination system for discriminating special document, and image forming apparatus, image processing apparatus and duplicator using the original-discrimination system.

US-5659628, Tachikawa et al., 8-19-1997: teach a special-document discriminating apparatus and managing system for image forming apparatus having a special-document discriminating function.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 703-306-3440. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine
Examiner
Art Unit 2624

ljd

KING Y. POON
PRIMARY EXAMINER